

Richard Kha

+1-647-809-4908 | richardkha3665k@gmail.com | www.r-kha.com/portfolio

 Richard Kha |  kRichard32

Toronto, Ontario, Canada

SUMMARY

Determined software developer with a background in machine learning, systems, research, and game development. Looking for an interesting role to develop important and impactful software.

EDUCATION

- **University of Toronto** September 2021 - October 2025
Toronto, Canada
B.Sc. in Computer Science (Honours), focus in Artificial Intelligence
 - GPA: 3.95/4.00
 - Relevant coursework: Data Structures & Analysis, Algorithm design & Analysis, Operating Systems, Introduction to Machine Learning, Neural Networks & Deep Learning

SKILLS

- **Programming Languages:** Java, Python, C/C++, JavaScript, React.js
- **Database Systems:** PostgreSQL
- **Data Science & Machine Learning:** PyTorch, Scikit-learn, Numpy
- **Cloud Technologies:** Google Cloud Platform, Docker
- **Other:** Git, GitHub, Linux, Unit Testing, REST APIs

WORK EXPERIENCE

- **Optimizing remote JIT compilation for the JVM** May 2024 - August 2024
Undergraduate researcher (University of Toronto & IBM CAS)
 - Developed benchmarking tools (Using Python, Java, Docker) to measure the speed of the JITServer
 - Created a scheduling algorithm in C++ which reduces client runtime by up to 9% in high load scenarios
 - Co-wrote the [paper](#) on our findings and performed an oral presentation at HotInfra '24
- **Automating Data Analysis for Enhancing ASD Therapy Sessions** September 2024 - December 2024
Undergraduate researcher (University of Toronto)
 - Implemented a diarization model (Deep neural network) from a recent paper and conducted tests to determine effectiveness of model
 - Developed an improved version of the diarization model with increased accuracy in the child-adult speech scenario and implemented an algorithm to improve transcriptions accuracy by up to 8%
 - Wrote a brief [report](#) on our findings

SELECTED PROJECTS

- **Koko: [A social app for seniors]** July 2025 - Present
[<https://kokosocial.ca/>]
Tools: [Java spring boot, React.js, Firebase, PostgreSQL, WebRTC, Google Oauth, GCP]
 - Alongside two classmates, created an android app to support social communication within older adult communities with a strong focus on accessibility
 - Worked on both the front-end mobile app and the back-end Java resource server for the application
 - Added messaging, video calling services, user creation services, and matchmaking services
 - Integrated a voice navigation feature for ease of use within the app
- **Neural Network Pokemon Image Classifier** May 2025 - June 2025
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Tools: [PyTorch, Triton Inference Server, ONNX, Python, React]
 - Implemented a convolutional neural network and trained it on a set of Pokemon images for classification
 - Created a React GUI which connected to a python backend through REST endpoints

HONORS AND AWARDS

- **Undergraduate Student Research Award (USRA)** May 2024 - September 2024
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Natural Sciences and Engineering Research Council of Canada (NSERC)
 - Award to support summer research done in 2024

PUBLICATIONS

- [1] R. Kha, N. Sreekumar, A. Khrabrov, E. de Lara, A. Brown, M. Gabel, M. Pirvu. (2024). [Towards Optimal Remote JIT Compilation Scheduling for the JVM](#). 2nd Workshop on Hot Topics in System Infrastructure (HotInfra 2024) held in conjunction with SOSP 2024. November 2024.

VOLUNTEER EXPERIENCE

- **Coding/Math Tutor** August 2021 - Present
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YDC - Youth Dream Canada
 - Mentored students in a 1 on 1 setting in computer science and math